REMARKS

The following remarks are made in response to the Office Action mailed October 5, 2004, in which claims 1-20 were rejected. With this Response, claim 9 has been amended. Claims 1-20 remain pending in the application and are presented for reconsideration and allowance.

Claim Rejections under 35 U.S.C. § 103

Claims 1, 6, 8, 9, 14, 15, and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wyman (U.S. Patent Application Publication No. 2003/0112347), in view of Voss et al. (U.S. Patent Application Publication No. 2003/0147640).

Wyman is alleged to disclose substantially the same: method for concurrently processing digital video frames and high resolution still images in burst mode, as presented in independent claim 1; joint video and still image pipeline for a video camera system, as presented in independent claim 9; and computer readable medium providing instructions for concurrently processing digital video frames and high resolution still images in burst mode, as presented in independent claim 17. In particular, in addition to other elements of independent claims 1, 9 and 17, Wyman is alleged to disclose "wherein the regular size [video] frames are downsampled into reduced size video frames, the reduced size frames have frame sizes smaller than the regular size video frames". In this regard, the Examiner references page 5, section [0042] of Wyman, which states in part "The frame is then converted to motion video format and written to the motion video media 110 (step 507). Specifically, motion video format implies that the frame is converted to a lower pixel resolution." The Examiner equates the "lower pixel resolution" of Wyman to the "downsampled frames" of claims 1, 9 and 17.

Wyman is acknowledged as failing to disclose: concurrently processing digital video frames and high resolution still images in burst mode; concurrently acquire regular size video frames and high resolution still image frames in burst mode, and storing the regular size video frames and the high resolution still image frames acquired during the burst mode into a memory, as claimed in independent claims 1, 9 and 17. However, Voss et al. is alleged to disclose those

elements. The Examiner finds that one of ordinary skill in the art, having the Wyman and Voss et al. references and the general knowledge of burst mode within digital cameras, would have not difficulty in providing the burst mode features as taught by Voss et al. to the system of Wyman.

The Examiners rejection of independent claims 1, 9 and 17 is respectfully traversed. Referring to Section 706.02 (j) of the MPEP, to establish a *prima facie* case of obviousness, three basic criteria must be met:

(1) There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to combine reference teachings;
(2) There must be reasonable expectation of success;
(3) The prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on Appellant's disclosure. See In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (F.E.D. Cir. 1991).

Independent claim 1 describes a method for concurrently processing digital video frames and high resolution still images in burst mode. The method comprises: **acquiring regular size video frames** and high resolution still image frames in burst mode from one or more image sensors; **downsampling the regular size video frames into reduced size video frames, wherein the reduced size frames have frame sizes smaller than the regular size video frames**; processing the high resolution still image frames acquired during the burst mode using a high resolution still image pipeline; and processing the reduced size video frames using a video pipeline, wherein the high resolution still image frames are processed concurrently with the reduced size video frames.

Amended independent claim 9 describes a joint video and still image pipeline for a video camera system. The joint video and still image pipeline comprises one or more image sensors capable of concurrently **acquiring regular size video frames** and high resolution still image frames in burst mode, **wherein the regular size video frames are downsampled into reduced size video frames, wherein the reduced size frames have frame sizes smaller than the regular size video frames**; a sensor controller capable of storing the regular size video frames

and the high resolution still image frames acquired during the burst mode into a memory; and one or more processors capable of concurrently processing the reduced size video frames and the high resolution still image frames acquired during the burst mode, wherein the reduced size video frames are processed using a video pipeline, and the high resolution still image frames are processed using a high resolution still image pipeline, and wherein the high resolution still image frames are processed concurrently with the reduced size video frames.

Independent claim 17 describes a computer readable medium providing instructions for concurrently processing digital video frames and high resolution still images in burst mode. The instructions comprise: **acquiring regular size video frames** and high resolution still image frames in burst mode from one or more image sensors; **downsampling the regular size video frames into reduced size video frames, wherein the reduced size frames have frame sizes smaller than the regular size video frames**; processing the high resolution still image frames acquired during the burst mode using a high resolution still image pipeline; and processing the reduced size video frames using a video pipeline, wherein the high resolution still image frames are processed concurrently with the reduced size video frames.

The Applicant respectfully submits that Wyman and Voss et al., either alone or in combination, fail to teach or suggest all the claim elements. Specifically, the references fail to teach or suggest at least the claim elements: "downsampling the regular size video frames into reduced size video frames, wherein the reduced size frames have frame sizes smaller than the regular size video frames" (original claim 1); "wherein the regular size video frames are downsampled into reduced size video frames, wherein the reduced size frames have frame sizes smaller than the regular size video frames" (amended claim 9); and "downsampling the regular size video frames into reduced size video frames, wherein the reduced size frames have frame sizes smaller than the regular size video frames" (original claim 17).

In Wyman, optical sensor 103 has a higher resolution than normally found in typical motion video cameras, preferably at least 1M pixels, and approximately 3M pixels in the exemplary embodiment (see Wyman, section [0028]). When recording motion video, frames are concurrently recorded in the buffer 204 and on the motion video recording media 110 at two

different resolutions. The full frame captured by the CCD array is jitter compensated, and is then stored in buffer 204 (see Wyman, section [0030]). At approximately the same time, the full-resolution 3M pixel frame is converted to a low-resolution motion video frame *of the same size* (see Wyman, section [0031]). That is, the frame size of the low-resolution motion video frame is the *same* as the frame size of the high resolution frame. The resolution decreases, but the frame sizes do not change. **Wyman therefore does not teach or suggest downsampling the regular size video frames into reduced size video frames, wherein the reduced size frames have frame sizes smaller than the regular size video frames.** Thus, the Examiner has erred in equating the "lower pixel resolution" of Wyman to the "downsampled frames" of claims 1, 9 and 17, in which it is clearly set forth that "the reduced size frames have frame sizes smaller than the regular size video frames".

Voss et al. does not remedy the above-noted deficiency of Wyman. In particular, Voss et al. makes no teaching or suggestion regarding frame sizes or changing frame sizes. Accordingly, the combination of Wyman and Voss et al. also cannot teach or suggest **downsampling the regular size video frames into reduced size video frames, wherein the reduced size frames have frame sizes smaller than the regular size video frames.**

For at least these reasons, Wyman and Ross et al., alone or in combination, fail to establish a *prima facie* case of obviousness, and the rejection of independent claims 1, 9 and 17 under 35 U.S.C. §103(a) should be withdrawn.

Claims 6, 8, 14 and 15 each depend, directly or indirectly, from one of independent claims 1 or 9. For at least the reasons discussed above, independent claims 1 and 9 are in allowable condition. Thus, dependent claims 6, 8, 14 and 15 are also in allowable condition by reason of their dependency from claims 1 and 9. Accordingly, withdrawal of the rejection of claims 6, 8, 14 and 15 under 35 U.S.C. §103(a) should be withdrawn.

Claims 2-4, 10-12 and 18-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wyman and Voss et al. as applied to claims 1, 6, 8, 9, 14, 15, and 17 above, and further in view of Ueno et al. (U.S. Patent No. 5,436,665).

Each of claims 2-4, 10-12 and 18-20 depend, directly or indirectly, from one of independent claims 1, 9 or 17. For at least the reasons discussed above, independent claims 1, 9 and 17 are not made obvious by Wyman and Voss et al, either alone or in combination, and are in allowable condition. Thus, dependent claims 2-4, 10-12 and 18-20 are also in allowable condition by reason of their dependency from claims 1, 9 and 17. Accordingly, withdrawal of the rejection of claims 2-4, 10-12 and 18-20 under 35 U.S.C. §103(a) should be withdrawn.

Claims 5 and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wyman and Voss et al. as applied to claims 1, 6, 8, 9, 14, 15, and 17 above, and further in view of Adolph et al. (U.S. Patent No. 6,081,295).

Each of claims 5 and 13 depend, directly or indirectly, from one of independent claims 1 or 9. For at least the reasons discussed above, independent claims 1 and 9 are not made obvious by Wyman and Voss et al, either alone or in combination, and are in allowable condition. Thus, dependent claims 5 and 13 are also in allowable condition by reason of their dependency from claims 1 and 9. Accordingly, withdrawal of the rejection of claims 5 and 13 under 35 U.S.C. §103(a) should be withdrawn.

Claims 7 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wyman and Voss et al. as applied to claims 1, 6, 8, 9, 14, 15, and 17 above, and further in view of Bittner et al. (U.S. Patent No. 6,300,400).

Each of claims 7 and 16 depend, directly or indirectly, from one of independent claims 1 or 9. For at least the reasons discussed above, independent claims 1 and 9 are not made obvious by Wyman and Voss et al, either alone or in combination, and are in allowable condition. Thus, dependent claims 7 and 16 are also in allowable condition by reason of their dependency from claims 1 and 9. Accordingly, withdrawal of the rejection of claims 7 and 16 under 35 U.S.C. §103(a) should be withdrawn.

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 1-20 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-20 is respectfully requested.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 08-2025.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to either Susan E. Heminger at Telephone No. (650) 236-2738, Facsimile No. (650) 852-8063 or Patrick G. Billig at Telephone No. (612) 573-2003 Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 21 day of December, 2004.

By

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